



Air Quality Permitting Statement of Basis

March 30, 2007

Permit to Construct No. P-060209

**Potlatch Forest Products Corporation
Idaho Pulp and Paperboard Division
Lewiston, ID**

Facility ID No. 069-00001

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DRAFT TO PUBLIC COMMENT

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Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CAA	Clean Air Act
CAM	Compliance assurance monitoring
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAPs	Hazardous Air Pollutants
HVLC	high volume, low concentration
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
LVHC	low volume, high concentration
MACT	Maximum Achievable Control Technology
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
NSR	new source review
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
Potlatch	Potlatch Forest Products Corporation, Idaho Pulp and Paperboard Division
PSD	Prevention of Significant Deterioration
PTC	permit to construct
Rules	Rules for the Control of Air Pollution in Idaho
scfh	standard cubic feet per hour
scfm	standard cubic feet per minute
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	Synthetic Minor
SO ₂	sulfur dioxide
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

Potlatch Forest Products Corporation, Idaho Pulp and Paperboard Division (Potlatch) operates a kraft pulp mill in Lewiston, Idaho. The mill produces bleached kraft pulp, which is processed in three different areas. Uncoated and coated paperboard is produced in the paper machine area; market pulp is dried on the pulp dryer in the finishing area; and slurried pulp stock is pumped to the Potlatch Forest Products Corporation, Consumer Product Division, which is adjacent to the Idaho Pulp and Paperboard Division.

3. FACILITY / AREA CLASSIFICATION

This facility is a major facility as defined by IDAPA 58.01.01.008.10, because it emits or has the potential to emit a regulated air pollutant(s) in amounts greater than or equal to major facility threshold(s) listed in IDAPA 58.01.01.008.10.

This facility is a designated facility as defined in IDAPA 58.01.01.006.26.

This facility is a major facility as defined in IDAPA 58.01.01.205, because it emits or has the potential to emit a regulated new source review (NSR) air pollutant in amounts greater than or equal to 100 tons per year.

The Standard Industrial Classification (SIC) defining the facility is 2611, and the Aerometric Information Retrieval System (AIRS) facility classification is A. The AIRS facility classification included in Appendix is not changed due to this permitting action.

The facility is located in Lewiston, Nez Perce County, Idaho, which is classified as attainment for all federal and state criteria pollutants. There is not a Class I area(s) within 10 kilometers of the facility. This facility is located in Air Quality Control Region (AQCR) 62 and Universal Transverse Mercator (UTM) Zone 11.

4. APPLICATION SCOPE

Potlatch requested to use a revision to the PTC for noncondensable gas incinerator issued August 29, 1997 as a vehicle to consolidate the related MACT, NSPS, CAM, and IDAPA requirements applying to noncondensable gases from low volume, high concentration (LVHC) system into one single PTC.

Noncondensable gases are also called LVHC gases.

It is important to point out:

- Though while lime kilns are used to control LVHC gas emissions from the LVHC system, they are also function as emissions units. The lime kilns are regulated in a separate PTC, and are not included in this permit.
- The Chip PreOx Brownstock Washers are subject to 40 CFR 60 subpart BB. They send high volume, low concentration (HVLC) gases to either No. 3 or No. 4 lime kiln. Since this permit

only regulates LVHC gas emissions, the Pre Ox Brownstock washers are not included in this permit.

4.1 Application Chronology

December 5, 2006	DEQ received the application.
January 4, 2007	DEQ declared the application incomplete.
January 8, 2007	Potlatch submitted the application supplement.
February 5, 2007	DEQ declared the application incomplete the second time.
February 9, 2007	Potlatch submitted the application supplement.
February 16, 2007	DEQ declared the application complete.
March 1, 2007	DEQ issued the draft permit for the facility review.
March 9, 2007	DEQ received the comments for the draft permit.
March 13, 2007	DEQ issued the second draft permit requested by the applicant for the facility review.
March 26, 2007	DEQ issued the third draft permit requested by the applicant for the facility review.
March 30, 2007	DEQ issued the draft permit for public comment to the applicant.

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action.

5.1 Equipment Listing

No changes are made to the equipment listing due to this permitting action.

5.2 Emissions Inventory

Emissions inventory was not provided in the application because there is no emissions increase due to this permitting action.

5.3 Modeling

Modeling was not provided in the application because there is no emissions increase due to this permitting action.

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.209.05.c.....Permit to Construct Procedures for Tier I Sources

Potlatch requested a PTC modification using IDAPA 58.01.01.209.05.c. It reads “*For Tier I sources that require a permit to construct, the owner or operator shall submit all information required by Sections 200 through 219 for a permit to construct and Sections 300 through 381 for a Tier I operating permit, or Tier I operating permit modification.*”

40 CFR 60 Subpart BBStandards of Performance for Kraft Pulp Mills

As per the May 1995 Tier I permit application, the multi-effect evaporator system installed in 1986 and the No. 9 Batch digester installed in 1988 are subject to this regulation. At startup, the multi-effect evaporator system met the requirements of 40 CFR 60 Subpart BB by incinerating the gases in a lime kiln per the information provided by the applicant.

Per information provided in an email attachment on March 9, 2007, the Chip PreOx Brownstock Washers installed in 1992 are subject to 40 CFR 60 subpart BB. However, they don't emit LVHC gases. Since this PTC only regulates LVHC gases, the Pre Ox Brownstock washers are not included in this permit.

40 CFR 63 Subpart SNational Emission Standards for Hazardous Air Pollutants
from the Pulp and Paper Industry

Potlatch kraft mill is subject to this regulation. Therefore, LVHC system is subject to the requirements in this subpart.

40 CFR 64Compliance Assurance Monitoring (CAM)

The incinerator uses the packed bed scrubber to achieve compliance with SO₂ emissions limits. Based on the information in the technical memorandum for August 29, 1997 PTC, the scrubber's control efficiency was 99%, and the controlled SO₂ emissions rate was 20 tons per year. The calculated pre-control device SO₂ emissions are greater than 100 tons per year. Therefore, the incinerator is subject to CAM for complying with its SO₂ emissions limits.

This permit action has included the CAM requirements for the incinerator at the request of Potlatch. However, Potlatch is not required to comply with CAM requirements until the regulatory deadline as defined in 40 CFR 64 because the incinerator is not a "larger pollutant-specific emissions units" as defined in 40 CFR 64.5.

The permittee can opt to comply with CAM requirements (i.e., Permit Conditions 2.26 to 2.30) prior to the regulatory deadline in order to stop using SO₂ CEM (i.e., stop complying with Permit Conditions 2.31 to 2.35).

SO₂ CEMS was required pursuant to IDAPA 58.01.01.200 (i.e., Title I of the Act or PTC). If Potlatch doesn't opt to stop using SO₂ CEMS prior to CAM regulatory deadline, in accordance with 40 CFR 64.3(d)(1), Potlatch shall use SO₂ CEMS to satisfy the requirements of CAM. In order to satisfy the general design criteria in paragraphs (a) and (b) of 40 CFR 64, the SO₂ CEMS shall meet the monitoring requirements in 40 CFR 60.13 and appendix B of 40 CFR 60, or whatever specified in 40 CFR 64.3(d).

IDAPA58.01.01.815-826Rules for Control of Kraft Pulping Mills

Potlatch is a Kraft pulping mill. Potlatch is subject to the requirements. For this permitting action specifically, the LVHC system is subject to the requirements.

5.5 Permit Conditions Review

This section describes only those permit conditions that have been revised, modified or deleted as a result of this permit action. All other permit conditions remain unchanged.

5.5.1 Section 1 of the permit describes the purpose of this permit action.

5.5.2 Permit Conditions 2.1 and 2.2 describe the LVHC system and its control.

5.5.3 Permit Conditions 2.3 to 2.12 include the requirements in 40 CFR 63 Subpart S that apply to LVHC gases from LVHC system.

- 5.5.4 Permit Condition 2.3 states that the permittee shall comply with 40 CFR 63, Subpart S; and should, there be a conflict between 40 CFR 63 Subpart S and Permit Conditions 2.4 to 2.12, requirements in 40 CFR 63, Subpart S shall govern.
- 5.5.5 Permit Conditions 2.13 to 2.16 include the requirements of 40 CFR 60 Subpart S that apply to LVHC gases from Potlatch's multiple-effect evaporator system and No.9 batch digester.
- 5.5.6 Permit Condition 2.13 states that the permittee shall comply with 40 CFR 60, Subpart BB; and should, there be a conflict between 40 CFR 60 Subpart BB and Permit Conditions 2.14 to 2.16, requirements in 40 CFR 60, Subpart BB shall govern.
- 5.5.7 Permit Conditions 2.17 and 2.19 include the requirements in IDAPA 58.01.01.815-826 that apply to LVHC gases from LVHC system.
- 5.5.8 Permit Condition 2.17 states that the permittee shall comply with IDAPA58.01.01.815-826; and should, there be a conflict between IDAPA58.01.01.815-826, and permit conditions 2.18 and 2.19, requirements in IDAPA58.01.01.815-826 shall govern.
- 5.5.9 Permit Condition 2.20 is taken from Permit Condition 1.1 of the existing PTC issued August 29, 1997.
- 5.5.10 Permit Condition 2.21 reads *"The permittee shall comply with visible emissions requirements as specified in facility's Tier I operating permit."* Specifically, the visible emissions requirements are under Permit Conditions 1.7 and 1.8 of the Tier I operating permit issued December 17, 2002 and modified February 21, 2007.
- 5.5.11 Permit Condition 2.22 allows the facility to operate the packed bed scrubber using CAM operating values developed under Permit Condition 2.26.
- 5.5.12 Permit Condition 2.23 specifies when Potlatch can stop using SO₂ CEMS.

It is important to point out that should Potlatch choose to use SO₂ CEMS to satisfy CAM, the SO₂ CEMS is required to meet the monitoring requirements under 40 CFR 64.3(d).

- 5.5.13 Permit Conditions 2.24 to 2.30 include the requirements in 40 CFR 64 that will apply to SO₂ emissions from the packed bed scrubber. The SO₂ emissions from the packed bed scrubber are due to the SO₂ emissions from the incinerator when the incinerator oxidizes the TRS in the LVHC gases from the LVHC system.
- 5.5.14 Permit Condition 2.24 states that the permittee shall comply with Permit Conditions 2.25 to 2.30 developed based on, or taken from 40 CFR 64 to ensure compliance with SO₂ emissions limits of the packed bed scrubber stack (also called incinerator stack); and should, there be a conflict between 40 CFR 64 and Permit Conditions 2.25 to 2.30, requirements in 40 CFR 64 shall govern.
- 5.5.15 Requirements in Permit Conditions 2.26 and 2.27 assure compliance with Permit Condition 2.25.
- 5.5.16 Permit Condition 2.26 requires the permittee to conduct performance test(s) in accordance with General Provision 6 of the permit to demonstrate compliance with Permit Condition 2.20, and to develop operating values as required in Table 2.2 of the permit.
- 5.5.17 In Permit Condition 2.26.1, "Within six months of the permit issuance" is picked after considering the Tier I expiration date that is December 10, 2007, and the expected issuing date of this permit that is about June 2008. As required in 2.26.1, the permittee shall test in accordance with IDAPA 58.01.01.157.

- 5.5.18 Permit Condition 2.26.2, and 2.26.3 are taken from Permit Conditions 3.3.1, and 4.4 of the existing PTC issued August 29, 1997.
- 5.5.19 Permit Condition 2.26.6 specifies the performance test frequency. During the conference call with Potlatch on March 21, 2007, Potlatch proposed to source test at least every five years in lieu of pulp production monitoring.
- 5.5.20 Permit condition 2.27 are approved monitoring requirements in accordance with 40 CFR 64.6.
- 5.5.21 Permit Condition 2.27.2 is developed based on information in EPA's CAMS Technical Guidance Document pages A.20-2 to A.20-4.
- 5.5.22 Permit Conditions 3.31 to 3.35 are requirements on SO₂ CEM taken from Permit Conditions 3.2, 4.1, 4.2, 4.3, 4.4, and 4.6 of the existing PTC issued August 29, 1997, respectively.
- 5.5.23 For Permit Condition 3.31.1, per information provided in the reviewed draft permit on March 9, 2007, the initial performance evaluation was submitted to DEQ (Ron Hill) on June 10, 1997 and annually thereafter. The most recent relative accuracy test assessment was performed on February 28, 2007.
- 5.5.24 Three-hour rolling average in Permit Condition 3.35 is changed to three-hour block average as requested by the applicant. The hourly limit in the August 29, 1997 PTC was to ensure that Potlatch would meet annual emissions limit of 20 tons per year so that Potlatch could avoid PSD. The three-hour block average is adequate to do the job.
- 5.5.25 In Permit Condition 2.31.4, "two years" is changed to "five years" in order to be consistent with General Provisions 7 of the permit.
- 5.5.26 Permit Condition 2.35 is taken from Permit Condition 4.6 issued August 29, 1997 with a minor change. Three-hour rolling average is changed to three-hour block average. The hourly limit in the August 29, 1997 PTC was to ensure that Potlatch would meet annual emissions limit of 20 tons per year so that Potlatch could avoid PSD. The three-hour block average is adequate to do the job.
- 5.5.27 Permit Condition 2.36 is taken from Permit Condition 4.7 of the existing PTC issued August 29, 1997. "or as part of semiannual report" is added to the end of the permit condition for reporting flexibility as requested by the applicant.
- 5.5.28 The following table summarizes changes made to the existing PTC issued August 29, 1997.

Existing Permit Condition (August 29, 1997) replaced by	Permit Conditions (Draft)	Note
1.1	2.20	
1.2	2.14	
1.3	2.21	
2.1	2.6 and 2.14	
2.2	2.22, 2.24 to 2.29	
2.3	2.4 to 2.12	
3.1	2.4 to 2.12, and 2.13 to 2.16	MACT, and NSPS requirements under Permit Conditions 2.4 to 2.12, and 2.13 to 2.16 will do the same job as the requirements in Permit Condition 3.1 of the existing permit issued August 29, 1997
3.2	2.31	Can be replaced with CAM requirements (i.e. Permit Conditions 2.26 to 2.30.)
3.3.1		Per information provided in the reviewed draft permit on March 9, 2007, the source

		test was conducted in 1997; and the SO ₂ CEMS has continually demonstrated compliance since that time.
3.3.2	2.4 to 2.12, and 2.13 to 2.16	See explanation for Permit Condition 3.1 of the existing PTC issued August 29, 1997.
3.4		
3.5		
4.1	2.32	Can be replaced with CAM requirements (i.e. Permit Conditions 2.26 to 2.30.)
4.2	2.33	
4.3	2.34	
4.4	2.26	
4.5	2.4 to 2.12, and 2.13 to 2.16	See explanation for Permit Condition 3.1 of the existing PTC issued August 29, 1997.
4.6	2.35	Can be replaced with CAM requirements (i.e. Permit Conditions 2.26 to 2.30.)
4.7	2.36	

6. PERMIT FEES

Potlatch submitted a \$1,000 PTC application fee on December 5, 2006, in accordance with IDAPA 58.01.01.224. No emissions increase due to this permitting action. In accordance with IDAPA 58.01.01.225, the PTC processing fee is \$1,000. The process fee was received on March 14, 2007. Potlatch is current on the Tier I fees.

7. PERMIT REVIEW

7.1 *Regional Review of Draft Permit*

The draft permit was made available for Lewiston Regional Office review on February 26, 2007. The comments were received on February 27, 2007. They are addressed in the permit.

7.2 *Facility Review of Draft Permit*

The first draft permit was issued on March 1, 2007. The second draft was issued on March 13, 2007. The third draft permit was issued on March 26, 2007.

7.3 *Public Comment*

A public comment period will be scheduled in accordance to IDAPA 58.01.01.209, 364, and 365. States of Washington and Oregon, and Nez Perce Indian Reservation are affected states as defined in IDAPA 58.01.01.300. The draft PTC will be sent to affected states for review in accordance with IDAPA 58.01.01.209.05.c.iii.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommend that Potlatch Forest Products Corporation, Idaho Pulp and Paperboard Division be issued a third draft PTC No. P-060209 for public comment.

SYC Permit No. P-060209

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Appendix

AIRS Information

P-0600209

AIRS/AFS^a FACILITY-WIDE CLASSIFICATION^b DATA ENTRY FORM

Facility Name: Potlatch Forest Products Corporation, IPPD
Facility Location: Lewiston
AIRS Number: 069-00001

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO ₂	A	A	A				A	U
NO _x	A	A	A				A	U
CO	A	A					A	U
PM ₁₀	A	A					A	U
PT (Particulate)	A	A	A				A	
VOC	A	A					A	U
THAP (Total HAPs)	C	C			C		C	
			APPLICABLE SUBPART					
			D, Dc, BB		S, MM			

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).